UNPUBLISHED
SURVEY & CONTROL
REPORTS

INTERMOUNTAIN STATION
Central Reference File
No. 3,4163-41

UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

FOREST INSECT INVESTIGATIONS

MEMORANDUM FOR DR. F. C. CRAIGHEAD, FOREST ENTOMOLOGIST, WASHINGTON, D. C.

Re: Mountain Pine Beetle Infestation, Smith Creek Drainage, Kaniksu National Forest

By
James C. Evenden
Entomologist

Forest Insect Laboratory
Coeur d'Alene, Idaho
March 30, 1937

U.S. GOVERNMENT PRINTING OFFICE 60918

FILE COPY
MISSOULA
FOREST INSECT
LABORATORY

Refer to file
Project X-1

Forest Insect Laboratory
Coeur d'Alene, Idaho
March 30, 1937

MEMORANDUM FOR DR. F. C. CRAIGHEAD, FOREST ENTOMOLOGIST, WASHINGTON, D.C.

Re: Mountain Pine Beetle Infestation, Smith Creek Drainage, Kaniksu National Forest

An outbreak of the mountain pine beetle in the Smith Creek drainage of the Kaniksu National Forest was recorded in the 1936 forest insect status reports, which are submitted annually by the forest rangers of Region 1. This infestation was reported as being in a stand of mature merchantable white pine, with rather large groups of infested trees being distributed throughout the area. At a conference with Mr. Koch, Assistant Regional Forester, on March 18th, for the purpose of discussing the status of insect conditions within the region, it was decided that if the Smith Creek infestation was as serious as reported, the institution of control measures would be justified. However, as data relative to the acreage of the area or numbers of infested trees requiring treatment were not contained within the ranger's report, additional field data would be necessary before definite action could be taken.

To secure the essential information relative to the present status of the infestation, Mr. T. T. Terrell of the Coeur d'Alene Laboratory and Mr. Corland James, Junior Forester, Kaniksu National Forest, spent the week of March 22 to 27 in making an extensive survey

of the mature white pine stands within the drainage. This survey was made under considerable difficulty, as the deep snow required the use of snowshoes under extremely unfavorable traveling conditions. Data were secured relative to the present status of the infestation, character of overwintering beetle broods, as well as the number of trees requiring treatment.

Within the Smith Creek drainage there are approximately 2,560 acres of mature white pine. In this timber stand there is an average infestation of .24 tree per acre, or 614 large mature white pine trees harboring 1936 attacks of the mountain pine beetle. Though this infestation is distributed throughout the total area of mature white pine, the heaviest concentration of infested trees lies on the north side of the road, with approximately 100 trees immediately adjacent to the highway. The 1936 attacks are extremely heavy, with the overwintering broods in a healthy condition, which would indicate a marked increase in the emergence of new adults as compared to the number attacking in 1936.

During the past decade the loss of white pine within this area has been extremely heavy, with a very large percentage of the stand being destroyed. The 1936 attack is estimated as being approximately 1 percent of the total stand of merchantable trees. Though an annual loss of 1 percent is a material reduction from that which occurred some few years ago, it is obvious that the existing infestation is

above a normal condition, and that it has the potential ability to rapidly increase to the status of the severe epidemic which occurred some few years ago. Data comparing the severity of the 1936 and 1935 infestations indicate that there was but little change in the status of conditions. However, with the character of the overwintering broods as indicated by the data secured, it is believed that there will be an increase in the severity of the infestation during the coming season.

The area of white pine within the Smith Creek drainage for which control measures are considered is somewhat isolated from other pine areas, with no large continuous bodies of white pine within the forest. However, it is recognized that the area as considered does not constitute an infestation unit, and that the beneficial results of control could be seriously impaired as a result of insect flights from untreated white pine stands some few miles distant. It is further realized that before control should be recommended for an area of this size the status of the infestation within all adjacent territories should be known. However, as it is impossible to secure these data at this time, and as a potentially serious situation exists within the Smith Creek area which if allowed to proceed unchecked will destroy remaining values, it is believed that the institution of control measures for this area would be justified on the basis that a thorough survey be made of all adjacent white pine stands during the coming season. This subsequent survey would have as its

objective the determination of the status of the mountain pine beetle infestation within all pine stands of the forest, leading to the institution of artificial control wherever it is deemed necessary. Mr. Koch concurs with this plan for a forest insect survey of the Kaniksu National Forest, which will be made under the supervision of the Coeur d'Alene laboratory during the coming season.

Believing that the severity of the infestation warrants such action, it is therefore recommended that the sum of $3,600 be allotted for the control of the mountain pine beetle within the white pine stands of the Smith Creek drainage, Kaniksu National Forest. It is furthermore recommended that means be provided for the institution of a thorough survey of all pine stand within the Kaniksu National Forest during the coming season.

Respectfully,

James C. Evenden
Entomologist